



International Center
for Law & Economics

Reply Comments of

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In the Matter of

**Connect America Fund
Universal Service Gigabit Communities
Race-to-the-Top Program Petition**

**WC Docket No. 10-90
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Introduction

It's been said, of the newest technology, that speed could change everything. If only we could cross a certain speed threshold, our basic infrastructure would catalyze new opportunities we can scarcely even conceive of. All government needs to do is prime the pump: fund a demonstration project to prove that we *can* do it, and markets will follow. The demand may not be there yet, but "if you build it, they will come."

The technology in question? The Concorde, of course — a plane that cost billions to produce, cost far more than standard air transport, and *still* operated at a loss, despite ongoing subsidies. Whatever its technological merits, Concorde was a dead-end as a viable business venture. The problem wasn't that it wasn't fast enough or even that it just wasn't quite cheap enough, but that there was no market for supersonic transport. After the initial government-funded development of the Concorde, no significant follow-on development occurred, no price-reducing technologies emerged, no carrier thought about bringing its impressive speed to the masses — because, even today, the market doesn't demand it.

The parallels with gigabit fiber broadband should be obvious — and worrisome. As the New America Foundation's Charles Kenny (in a study co-authored with Robert Kenny), put it:

All else equal, faster is better — surely. But faster technologies don't always triumph; think of passenger hovercraft, maglev trains, and supersonic airliners. These technologies didn't fail because they weren't superior, but because the demand wasn't there, or was insufficient to justify cost. Concorde (if it hadn't retired) would still be the fastest passenger aircraft today, having first flown in 1969. At the time it was being developed, supersonic passenger flight was expected to become ubiquitous. It turned out that the incremental benefits of speed to most customers was not worth the extra cost.³

The point is that supersonic air travel technology hasn't progressed since 1969 because *even now* — let alone in 1969 — there is insufficient demand to support it.

The same 1960s technocratic mindset underlies today's calls for public-financed gigabit networks. Both rest on the same core fallacy: the technologies (in both cases focused solely on speed) behind today's transportation/communications networks are inadequate to support the next generation of uses — and government subsidies are required to get us from "here" to "there."

But, as with the Concorde, there is no "there" there:

[F]iber to the home may be no more worth[y] of subsidy than Concorde. Flashy and exciting, to be sure — but ultimately not worth the price.⁴

Air transportation *was* transformed during the period Concorde operated (1976 to 2003), but that transformation had nothing at all to do with the lavish public subsidies for Concorde (either up front or ongoing) and everything to do with smarter public policy — removing regulatory barriers that had dictated a specific (inefficient) market structure and protected incumbent operators from competition.

³ Robert Kenny and Charles Kenny, *Superfast: Is It Really Worth a Subsidy?* (Communications Chambers, November 2010), available at http://charleskenny.blogs.com/files/overselling_fibre_1127.pdf.

⁴ *Id.*

The price of air transportation has fallen by almost 50% since deregulation.⁵ People got what they wanted: safe, inexpensive air travel, not supersonic speed. One of the heroes of this transformation, Ryanair CEO Michael O’Leary, had this to say about air travel and the mindset that brought us the Concorde:

The problem with aviation is that for fifty years it’s been populated by people who think it’s this wondrous sexual experience; that it’s like James Bond and wonderful and we’ll all be flying first class when really it’s just a bloody bus with wings.... Most people just want to get from A to B. You don’t want to pay £500 for a flight.⁶

Most people want to use the Internet to surf the Web, send emails and watch videos. And whether they have to pay for it directly, through taxes, or through forestalled investment elsewhere, there’s little evidence that they want or need the broadband equivalent of supersonic transport to do what they want to do online. Perhaps most important, there is no evidence of market failure in need of correction — no evidence that today’s ISPs and today’s infrastructure are failing to offer the speed and other characteristics that users demand, nor that they will fail to do so in the future. Broadband *is* getting faster — just not fast enough for those who think of broadband the way people once thought of the Concorde.

Before we use taxpayer funds to subsidize the Concorde of the Internet, we should be sure there is a sound basis for doing so. ISPs are already supplying broadband well excess of current and anticipated demand (as defined by speed, capacity, latency, *etc.*) and ISPs seem fully capable of meeting all anticipated demand. Moreover, this is true based on current and future investment by ISPs (more than \$50 billion worth in 2012 alone according to the Progressive Policy Institute⁷) — investment that has been sufficient to ensure that there has never yet been a real supply bottleneck in broadband.

This isn’t to say there’s no role for government. There are some impediments to the sort of broadband connectivity people actually *do* want — most importantly local and state regulations that reduce competition and increase the cost of new facilities. The FCC should consider ways to encourage state and local governments to reduce these regulatory barriers rather than create an expensive new program to subsidize a particular technology (fiber) picked because of an arbitrary, top-down decision that people should have a certain speed — even if they don’t yet want it.

The FCC should heed the wisdom of Australia’s new Communications Minister who explained his government’s decision to abandon plans for a national fiber-to-the-home network in favor of subsidizing far less expensive, but slightly slower, fiber-to-the node connectivity:

⁵ Mark J. Perry, *Even with baggage fees, the ‘miracle of flight’ remains a real bargain; average 2011 airfare was 40% below 1980 average*, AEI IDEAS (Oct. 6, 2012), <http://www.aei-ideas.org/2012/10/even-with-baggage-fees-the-miracle-of-flight-remains-a-real-bargain-average-2011-airfare-was-40-below-1980-level/>.

⁶ Jonathan Glancey, *Concorde: A 20th Century Design Classic*, BBC (May 30, 2013), <http://www.bbc.com/culture/story/20130529-concorde-on-a-different-plane>.

⁷ Diana G. Carew & Michael Mandel, U.S. Investment Heroes of 2013: The Companies Betting on America’s Future, PROGRESSIVE POLICY INSTITUTE (Sep. 2013), http://www.progressivepolicy.org/wp-content/uploads/2013/09/2013.09-Carew-Mandel_US-Investment-Heroes-of-2013.pdf.

The Government is thoroughly open-minded; we are not dogmatic about technology. Technology is not an ideological issue; we are completely agnostic about it. What we want to do is get the best result for taxpayers and consumers as soon as possible.⁸

There's No Economic Basis for Artificially Promoting Gigabit Fiber

The petition envisions a world where gigabit speed is a necessity, despite the lack of demand for such speeds, or any proof that ISPs are incapable of meeting either current or future demand.

The Petitioner believes gigabit fiber technology is necessary to “turn consumers into producers, engender collaboration, and unlock a wide range of creative activities,”⁹ but this ignores the considerable extent to which current broadband capabilities have already led to this result, *in response to actual, demonstrated consumer demand*.

As the National Broadband Map shows, American citizens have increasingly adopted faster Internet services as they perceived the need to do so for their employment and entertainment needs.¹⁰ In a recent survey, the number one reason cited for why offline adults don't use the Internet is not access, price, or speed, but relevance, followed closely by usability (*i.e.*, the adult's ability to make sense of the Internet).¹¹ To put it another way, supply has closely paralleled demand — almost as if, despite governmental barriers to competition, markets worked reasonably well.

Further, the quality content consumers demand still costs time and money to produce. It is simply not the case that an increase in speed will reduce transaction costs so dramatically that it will on its own facilitate radically new models of production.

High quality video streaming leads the way among data-intensive services in driving demand for faster networks. But, even here, the speeds currently available in the marketplace are quite ample for most consumers. Today, as little as 3.8 Mbps is all that is necessary to run Netflix's current video service, which has led one critic to ask “How much faster [Internet service] does anybody really want or need?”¹² Even Netflix Super HD, which streams at the maximum supported by most televisions and screens (1080p) requires only 5-7 Mbps.¹³ And now Netflix has announced plans to launch 4K video (four times

⁸ Greg Hoy, *Government aims for NBN cost and time savings*, AUSTRALIAN BROADCASTING CORPORATION (Sep. 24, 2013), <http://www.abc.net.au/7.30/content/2013/s3855656.htm>.

⁹ Fiber-to-the-Home Council Americas' Petition for Rulemaking to Establish a Gigabit Communities Race-to-the-Top Program 2, WC Docket No. 10-90, *available at* <http://civsourceonline.com/wp-content/uploads/2013/07/Fiber-to-the-Home-Council-Petition-for-Rulemaking-July-23-2013-.pdf> [hereinafter “Petition”].

¹⁰ *Broadband Statistics Report: Access to Broadband Technology by Speed*, NATIONAL BROADBAND MAP (Jul. 2013), <http://www.broadbandmap.gov/download/Technology%20by%20Speed.pdf>.

¹¹ Andrea Peterson, *The 15 percent of American adults who are offline, in charts*, THE SWITCH (Sep. 25, 2013), http://www.washingtonpost.com/blogs/the-switch/wp/2013/09/25/the-15-percent-of-american-adults-who-are-offline-in-charts/?wpisrc=nl_tech.

¹² David Talbot, *Not So Fast: A Google Fiber One-Gigabit Mystery*, MIT TECHNOLOGY REVIEW (Sep. 20, 2013), <http://www.technologyreview.com/view/519466/not-so-fast-a-google-fiber-1-gigabit-mystery/>.

¹³ *Netflix Super HD* (last accessed Sep. 26, 2013), <https://support.netflix.com/en/node/8731>.

the resolution of 1080p¹⁴) in 2014, claiming even this impressive quality increase would require only 15 Mbps.¹⁵

Moreover, absolute network speed isn't always the most price effective means of serving content quickly and myriad other network improvements can do as much or more to enable the quality of service users demand. Networks continue to develop and implement innovative network management technologies (like CDNs, for example) to reduce physical distance, optimize network routing, and compress or streamline data, among other things. Without any prodding from the government, broadband providers are investing in and developing technologies to make their networks faster, yes, but also more reliable, secure and robust. They're also working to make their service more affordable.

Government Failure Is More Established than Market Failure

Markets aren't perfect, but they tend to reward companies for providing things consumers want, in a cost-effective manner. Private firms have an obligation to maximize value for their shareholders and therefore must make financially sustainable investments driven by actual consumer demand. Public entities, on the other hand, do not have these incentives, and, as a result, they can (and sometimes do) engage in speculative projects at tremendous cost to taxpayers. See, e.g., the Concorde. Unfortunately, the petition is premised on the idea that government-financed projects will outpace market-driven investment.

The Petitioner's reliance on local governments to manage these projects ignores economic theory and the evidence. Local governments are not well suited to finance, construct, and manage broadband Internet access networks. The evidence is overwhelming. The city of Groton, Connecticut borrowed \$34.5 million to build a broadband network, ran the network at a \$2.5 million annual loss, sold the network for \$550,000, and left taxpayers with the bill.¹⁶ Similarly, the "financially troubled" (and ironically named) UTOPIA project has saddled Utah cities with debt, leading at least one such city to propose property tax increases in order to meet its network-related debt obligations.¹⁷ Tellingly, this city's leadership has fought for the right to omit any mention of UTOPIA in its tax increase referendum because, in the words of one resident, it is "embarrassed about the financial fiasco that UTOPIA has caused."¹⁸

Other examples abound. LUS Fiber in Lafayette, Louisiana faced revenue problems for years due to insufficient uptake from consumers, having to readjust projections and repayment plans several

¹⁴ *What is the difference between 1080p and 4K resolution?* (last accessed Sep. 26, 2013), http://esupport.sony.com/p/support-info.pl?info_id=1348&template_id=1®ion_id=3.

¹⁵ Jeff Baumgartner, *Netflix CEO: 15-Meg Will Be Good Enough To Stream 4K*, MULTICHANNEL NEWS (Sep. 20, 2013), <http://www.multichannel.com/distribution/netflix-ceo-15-meg-will-be-good-enough-stream-4k/145595>.

¹⁶ See Deborah Straszheim, *How a Promising Idea Went Terribly Wrong in Groton*, GROTON PATCH (Jan. 6, 2013), available at <http://groton.patch.com/groups/politics-and-elections/p/how-a-promising-idea-went-horribly-wrong-in-groton>; Greg Smith, *Groton's Deal to Shed TVC Finalized as New Owners Take the Reigns*, THE DAY (Feb. 1, 2013), available at <http://www.theday.com/article/20130201/NWS01/130209982/0/Search>.

¹⁷ See Steven Oberbeck, *Orem Tax Hike Ballot to Fund UTOPIA Won't Mention the Troubled Network*, THE SALT LAKE TRIBUNE (Sept. 13, 2013), available at <http://www.sltrib.com/sltrib/money/56862022-79/utopia-ballot-orem-court.html.csp>.

¹⁸ See *id.*

times.¹⁹ And the fiber network in Provo, Utah, known as iProvo failed so badly²⁰ that it was first sold to Broadwave Networks and then essentially given away to Google for \$1. In the meantime, it cost taxpayers millions of dollars in an attempt to pay off its debt.²¹

Outside of the United States, Australia's National Broadband Network has fallen victim to mismanagement, political turmoil, and massive cost overruns. The project began as a government plan to invest \$43 billion to build fiber-to-the-premises facilities to 90% of Australian homes, schools, and workplaces,²² but it eventually became clear that costs would run tens of billions of dollars over budget.²³ New leaders proposing to scale the project back to a fiber-to-the-node architecture in order to reduce costs were recently elected,²⁴ and the future of Australia's National Broadband Network now hangs in the political balance.²⁵

Similarly in Finland, a fiber project that bears striking resemblance to the petition is struggling. Sparsely populated areas of the north are especially hard to wire, leading to much higher total costs for the initiative. In total, the price tag to bring 100 Mbps of service to within two kilometers of all of Finland will be up to a staggering €53,000 (\$68,000) per household.²⁶ For their own part, regional authorities have been burdened with the excessive bureaucracy, and many of the local projects slated for development have had to wait because the actual bill has been more than projected.

At the same time, private firms are making significant investments to increase speeds and access to their networks. 82% of American homes are passed by (if not connected to) a broadband network capable of speeds of 100 Mbps or higher.²⁷ AT&T, for example, is successfully embracing innovative techniques to offer speeds of 45 Mbps (more than eleven times the FCC's threshold defining broadband and perfectly capable of streaming Netflix's 4K video) to consumers over retrofitted copper lines, and it

¹⁹ Nathan Stubbs, *Inside LUS Fiber's new marketing push and why it's crucial to the business' long-term success*, IND (Nov. 24, 2010), <http://www.theind.com/cover-story/7339-market-share>.

²⁰ Steve Titch, *Spinning its Wheels: An Analysis of Lessons Learned from iProvo's First 18 Months of Municipal Broadband*, REASON FOUNDATION (Dec. 2006), <http://reason.org/files/33224c9b01e12f3b969f4257037c057e.pdf>; Steve Titch, *Think Tank: iProvo's Losses at \$8 Million and Counting*, REASON FOUNDATION (Apr. 16, 2008), http://www.reason.org/news/iprovo_municipal_wifi_broadband_update_041608.shtml.

²¹ Steve Gehrke, *iProvo gets OK for tax surplus: Council votes 5-1 to bail out fiber-optic system*, THE SALT LAKE TRIBUNE (Jun. 6, 2007), available at http://www.sltrib.com/SEARCH/ci_6080894.

²² See Joint Media Release by Steven Conroy, Minister for Broadband, Communications and the Digital Economy, *et al.*, "New National Broadband Network" (Apr. 7, 2009), available at http://www.minister.dbcde.gov.au/conroy/media/media_releases/2009/022.

²³ See Annabel Hepworth, *NBN Costs Set to Soar Past \$60bn*, THE AUSTRALIAN (July 24, 2013), available at <http://www.theaustralian.com.au/business/in-depth/nbn-costs-set-to-soar-past-60bn/story-e6frgaif-1226684023561>.

²⁴ See "The Coalition's Plan for Fast Broadband and an Affordable NBN" (Apr. 2013), available at <http://lpaweb-static.s3.amazonaws.com/Policies/NBN.pdf>.

²⁵ See Annabel Hepworth, *Coalition to Delay NBN Laws Until 2014*, THE AUSTRALIAN (Sept. 13, 2013), available at <http://www.theaustralian.com.au/national-affairs/election-2013/coalition-to-delay-nbn-laws-until-2014/story-fn9qr68y-1226718041481>.

²⁶ Cyrus Farivar, *Finland: Plan for universal 100Mbps service by 2015 on track*, ARSTECHNICA (Oct. 31, 2012), <http://arstechnica.com/business/2012/10/finland-plan-for-universal-100mbps-service-by-2015-on-track/>.

²⁷ Richard Bennett, Luke A. Stewart, & Robert D. Atkinson, *Key Facts from "The Whole Picture: Where America's Broadband Networks Really Stand"*, ITIF (Feb. 2013), available at <http://www2.itif.org/2013-whole-picture-key-facts-broadband.pdf>.

plans to offer speeds as high as 100 Mbps over this plant in the future.²⁸ And numerous 4G wireless broadband providers are rapidly deploying LTE to all corners of the country while eyeing LTE Advanced as a means of boosting wireless connection speeds even further.²⁹ Indeed, even when it comes to the ultra-fast services for which the Petitioner yearns, Comcast and Verizon FiOS already offer consumers downstream speeds as high as 505 Mbps,³⁰ and the next generation of cable modem technology, DOCSIS 3.1, will enable speeds well beyond 1 Gbps.³¹

In other words, without relying on government subsidies for a particular technology, private companies are fulfilling actual consumer demand for speed and other network improvements sufficient to ensure a robust present and future for Internet access.

What Government Can Do: Deregulation

The evidence demonstrates that the private sector will continue to meet consumer demand, but there are still actions that governments at all levels can take to promote this goal: Reduce anti-competitive regulatory barriers to entry.

Kansas City's willingness to ease regulatory restrictions was essential to Google's decision to deploy its fiber network there.³² Despite the failure of municipal fiber in Provo, Utah, Google has also stepped in there to buy the network, and has made plans to provide a free 5 Mbps download / 1 Mbps upload option.³³ Google was able to move quickly into Provo because the city willingly sold its existing infrastructure for \$1 after struggling to keep the network afloat.³⁴ And while not all the details are known, Google also has plans to deploy fiber in Austin, Texas, which made deal with Google similar to Kansas City's.³⁵

It is unfortunate that the Petitioner has seemingly forgotten the recommendations made in its own May 2013 Fiber Friendly Communities Report. There, the Fiber-to-the-Home Council urges local governments to adopt a mostly deregulatory agenda in order to "meaningfully reduce deployment

²⁸ See AT&T Press Release, "45 Mbps U-Verse Internet Service Arrives in 40 Additional Markets" (Aug. 26, 2013), available at <http://www.att.com/gen/press-room?pid=24734&cdvn=news&newsarticleid=36934>.

²⁹ See Sue Marek, *LTE Advanced is the Next Competitive Battleground for Operators*, FIERCEWIRELESS (June 28, 2013), available at <http://www.fiercewireless.com/story/lte-advanced-next-competitive-battleground-operators/2013-06-28>.

³⁰ See Steve Donahue, *Comcast Jacks Speed of Xfinity Platinum to 505 Mbps*, FIERCECABLE (Sept. 18, 2013), available at <http://www.fiercecable.com/story/comcast-jacks-speed-xfinity-platinum-505-mbps/2013-09-18>; Verizon Press Release, "Summer Just Got Hotter: Verizon Rolls Out New, Blistering 500/100 Mbps FiOS Quantum Internet Service" (July 22, 2013), available at <http://newscenter.verizon.com/corporate/news-articles/2013/07-22-verizon-rolls-out-500-100-mbps-fios-service/>.

³¹ See Todd Spangler, *Cable-Tec Expo: DOCSIS 3.1 to Blaze Trail Toward 10 Gig Speeds*, MULTICHANNEL NEWS (Oct. 18, 2012), available at <http://www.multichannel.com/cable-operators/cable-tec-expo-docsis-31-blaze-trail-toward-10-gig-speeds/139883>.

³² See FCC News Release, Statement of Commissioner Ajit Pai on his Visit to Kansas City's Google Fiber Project (Sept. 5, 2012), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-316114A1.pdf.

³³ Seth Rosenblatt, *Google Fiber Reveals Plan for Provo*, CNET NEWS (Aug. 15, 2013), http://news.cnet.com/8301-1023_3-57598760-93/google-fiber-reveals-plans-for-provo/.

³⁴ Charlie Osborne, *Google to buy \$39m Provo fiber service for \$1*, ZDNET (Apr. 19, 2013), <http://www.zdnet.com/google-to-buy-39m-provo-fiber-service-for-1-7000014270/>.

³⁵ Colin Pope, *Google Fiber in Austin: Here's what we know*, AUSTIN BUSINESS JOURNAL (Sep. 23, 2013), <http://www.bizjournals.com/austin/blog/techflash/2013/09/google-fiber-in-austin-heres-what-we.html>.

costs and tip the balance in favor of FTTH network investment in your community.”³⁶ Among other things, the recommendations include:

- Defining an expeditious process for ongoing permitting and inspections
- Permitting innovative construction techniques
- Rethinking “must build” requirements and finding more flexible ways to ensure access
- Making all rights-of-way available on clearly defined, reasonable terms through a rapid approval process
- Making poles available on clearly defined, reasonable terms through a rapid approval process
- Providing space on all poles for new attachers, where government has authority to do so
- Adopting a “dig once” policy to inexpensively make fiber conduit readily available

On top of these local actions, the FCC’s establishment of a shot clock for wireless tower siting applications³⁷ (recently upheld by the Supreme Court), its recent efforts to facilitate access to rights-of-way,³⁸ and the President’s “Dig Once” Plan³⁹ for laying conduit under publicly financed roads are all very welcome steps. Such actions reduce the regulatory barriers to providing broadband Internet access service, increasing the potential for competition.

But there is, of course, a key distinction between these actions and the policies urged by the Petitioner — these actions allow market forces to operate more efficiently, whereas the Petitioner’s proposal would undermine market forces altogether.

What we need is open access to publicly owned infrastructure, not publicly-run networks.⁴⁰

The Petitioner Fails to Establish Benefits and Fails to Consider Costs

The Petitioner’s analysis relies heavily on select anecdotes and speculation about benefits, with no consideration of opportunity costs. The petition points to “[g]oal Number 4 of the NBP, [which] called for ‘[e]very American community [to] have affordable access to at least 1 gigabit per second broadband service to anchor institutions such as schools, hospitals and government buildings.’”⁴¹ But neither the petition nor the NBP offers any evidence to support the alleged benefits of such speed, and nowhere

³⁶ Fiber Friendly Communities report, <http://www.ftthcouncil.org/d/do/1215>.

³⁷ See *Petition for Declaratory Ruling to Clarify Provisions of Section 332(c)(7)(B) to Ensure Timely Siting Review and to Preempt Under Section 253 State and Local Ordinances that Classify All Wireless Siting Proposals as Requiring a Variance*, Declaratory Ruling, 24 FCC Rcd. 13994 (2009), *aff’d City of Arlington, Tex. v. FCC*, 133 S.Ct. 1863 (2013).

³⁸ See *Acceleration of Broadband Deployment: Expanding the Reach and Reducing the Cost of Broadband Deployment by Improving Policies Regarding Public Rights of Way and Wireless Facilities Siting*, Notice of Inquiry, FCC 11-51 (2011).

³⁹ Executive Order – Accelerating Broadband Infrastructure Deployment, June 14, 2012, *available at* <http://www.whitehouse.gov/the-press-office/2012/06/14/executive-order-accelerating-broadband-infrastructure-deployment>.

⁴⁰ See Berin Szoka, Matt Starr, & Jon Henke, *Don’t Blame Big Cable. It’s Local Governments That Choke Broadband Competition*, WIRED (Jul. 16, 2013), <http://www.wired.com/opinion/2013/07/we-need-to-stop-focusing-on-just-cable-companies-and-blame-local-government-for-dismal-broadband-competition/>.

⁴¹ Petition, *supra* note 9, at 8.

are opportunity costs considered. Much like the E-Rate goal referenced, the Petitioner's goal of 1 gigabit speed is analytically unsupported and arbitrary.⁴²

Focusing myopically on speed comes at a steep cost. As we stated in our E-rate Comments,

Meeting those [arbitrary speed] targets means dictating to schools and libraries that they should spend limited resources on broadband connections that they may not actually need or use, rather than address their real technological needs....

Without any evidentiary support...there is no rational basis for basing distribution of E-rate funds on these arbitrary targets, and there is some reason to think that...the target may be too high....

It's unlikely that there's one right mix for the entire country, that the FCC can design that mix today, or that it can expeditiously adjust the mix as technology changes. So rather than attempt to design the perfect digital connectivity program, the FCC should leave this up [to users] themselves."⁴³

Similarly, the Petitioner here wants to create a program that ignores the benefits of anything but gigabit fiber connections, at the cost of different, marginal, but important improvements in current broadband provision.

The goal of the universal service fund is to subsidize the construction of networks and the provision of services in parts of the country *where doing so would otherwise be uneconomical*. But the Petitioner's proposal to subsidize municipal broadband projects in areas that are already served by unsubsidized providers reaches far beyond this limited objective. Adopting this proposal would unfairly and unwisely distort the marketplace and weaken private-sector providers' incentives to continue investing in their networks. Moreover, the resources used to finance these efforts would be diverted from the Connect America Fund, directly undermining the Commission's universal service goals.⁴⁴

The Petitioner's plan will likely *reduce* private investment by crowding it out. Because 1 gigabit is the benchmark, areas that already have very high speed Internet of 100 Mbps all the way up to 999 Mbps could still be targeted for federal subsidies. While the petition allows such incumbents to have a proposal withdrawn, they must promise to build essentially the same 1 gigabit network, *in two years and with no government assistance*.⁴⁵ Not only is this unfair to companies that have invested a combined hundreds of billions of dollars in the last 20 years,⁴⁶ but this proposal would reduce the incentives for companies to raise and invest capital in high-speed networks going forward: Why bother if your competitors are going to do it with government assistance? Government will tilt the market in

⁴² Cf. Comments of Geoffrey Manne & Berin Szoka *In the Matter of Modernizing the E-Rate Program for Schools and Libraries*, WC Docket 13-184, Sep. 16, 2013, available at <http://apps.fcc.gov/ecfs/document/view?id=7520944261>.

⁴³ *Id.* at 3, 5, 6.

⁴⁴ See USTelecom Comments *In the Matter of Connect America Fund Universal Gigabit Communities Race-to-the-Top Program Petition 1-4*, available at <http://www.ustelecom.org/sites/default/files/documents/FTTH%20Petition%209-11-13.pdf>.

⁴⁵ Petition, *supra* note 9, at 19, n.50.

⁴⁶ See Ben Sperry, *Will the Real Broadband Heroes Please Stand Up?*, TRUTH ON THE MARKET, <http://truthonthemarket.com/2013/09/19/will-the-real-broadband-heroes-please-stand-up/>.

favor of companies spending resources lobbying for government subsidies instead of spending those resources on building the infrastructure itself.

Conclusion

The claim that the mere subsidization of the supply of gigabit networks will stimulate demand for those networks is a bastardization of economics. Supply side theory does not hold that if you artificially increase supply, then demand — and growth — will come. Rather, supply side theory says that low growth is due to low productivity. If you increase an economy's productive capacity by allowing resources to be put to their most productive use (through regulatory, tax or labor market reforms), then economic growth will occur. This is precisely what deregulatory reforms enabled in airlines and telecommunications.

The Petitioner's lofty goals (outlined in Section II of its petition) will not be achieved by blithely pouring taxpayer dollars into a politically favored particular technology or aiming at an arbitrary performance target. Rather, economic growth will come from the bottom-up co-evolution of technology and demand, facilitated by *removing* impediments to the free flow of resources and allowing the market to satisfy demand, increase productivity and create new opportunities. When policymakers do set certain societal goals, like bridging the digital divide, they should still channel market forces to the greatest extent possible. That means targeting smart subsidies to increase the buying power of those who want but can't afford broadband — *not* picking technological winners and losers. The Petition would more likely stymie, not stimulate, the continued investment in broadband necessary to make sure that supply keeps pace with demand in all respects that matter — not just speed but affordability and other aspects of quality service.